

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical  
Information Center (STIC) no errors detected.**

Application Serial Number: 10/594, 192  
Source: LEWP  
Date Processed by STIC: 10/05/2006

# ***ENTERED***



IFWP

## RAW SEQUENCE LISTING

DATE: 10/05/2006

PATENT APPLICATION: US/10/594,192

TIME: 09:45:19

Input Set : A:\19313-015 NATL (1-59).ST25.txt

Output Set: N:\CRF4\10052006\J594192.raw

3 <110> APPLICANT: Gronborg, Mette  
 4 Kusk, Philip  
 5 Blom, Nikolaj  
 6 Nordahl Petersen, Thomas  
 7 Johansen, Teit  
 8 Brunak, Soren  
 9 Wahlberg, Lars  
 11 <120> TITLE OF INVENTION: Therapeutic use of a growth factor, NsG33  
 13 <130> FILE REFERENCE: 19313-015 NATL  
 C--> 15 <140> CURRENT APPLICATION NUMBER: US/10/594,192  
 C--> 16 <141> CURRENT FILING DATE: 2006-09-25  
 18 <150> PRIOR APPLICATION NUMBER: PCT/EP2005/051431  
 19 <151> PRIOR FILING DATE: 2005-03-30  
 21 <150> PRIOR APPLICATION NUMBER: DK PA 2004 00510  
 22 <151> PRIOR FILING DATE: 2004-03-30  
 24 <150> PRIOR APPLICATION NUMBER: US 60/575,086  
 25 <151> PRIOR FILING DATE: 2004-05-28  
 27 <150> PRIOR APPLICATION NUMBER: DK PA 2004 00843  
 28 <151> PRIOR FILING DATE: 2004-05-28  
 30 <160> NUMBER OF SEQ ID NOS: 59  
 32 <170> SOFTWARE: PatentIn version 3.2  
 34 <210> SEQ ID NO: 1  
 35 <211> LENGTH: 2508  
 36 <212> TYPE: DNA  
 37 <213> ORGANISM: Homo sapiens  
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 42 ctggggctgc gcggcaggcg gagcgggcgc gggcttgggg gcttcgccgg ggccggggcg 120  
 44 ccggcgcccc cggctgctcc cgccgcccgc cggaccgcgc ccccgccggg gcagcggtgg 180  
 46 tgagagcccc gactccccgg acgcccggcg ccgtgccatg gggttcccgg ccgcggcgct 240  
 48 gctctgcgcg ctgtgctgcg gcctcctggc cccggctgcc cgcgcgggct actccgagga 300  
 50 gcgctgcagc tggaggggca ggtacggtcc ggggggctgt ccccgcaact aggacggggt 360  
 52 gcgctgcggc taggaccccc caggcgcccc tcggagcgcg cagagcgctg ggccggtttc 420  
 54 cccatccgcg aggcggcctc gggagggagc gggggctgcg ccgggcgggg acccgccccc 480  
 56 gtctcagcgc cccgtcccgt cctgtcccca gcggcctcac ccaggagccc ggcagcggtg 540  
 58 ggcagctggc cctggcctgt gcggagggcg cggttgagtg gctgtaccgg gctggggcgc 600  
 60 tgcgcctgac cctgggcggc cccgatccca gacgcgggcc cggcatcgcc tgtctgcggc 660  
 62 cggtgcggcc cttcgcgggc gccaggtct tcgcggagcg cgcagggggc gccctggagc 720  
 64 tgctgtggc cgagggcccg ggcccggcag ggggcccgtg cgtgcgctgg ggtccccgcg 780  
 66 agcgccggcg cctcttcctg caggccacgc cgcaccagga catcagccgc cgcgtggccg 840  
 68 ccttcgcgtt tgagctgcgc gaggacggcg gccccgagct gccccgcag gccacgggtc 900  
 70 tcggcgtaga cggtagtggg cggctcgtgt gggacagggt gggagtcccc aagtcttacc 960  
 72 ctgcctgggc ttggcgggaa tgtgccttgt cggccccact gcagaaggaa aaagtgagct 1020

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78 ggggaggccg ggcccagcaa tcctgggcct ctggtccctg aacggttggg ggaagagatg 1200
80 gtggggacag aatcgaagcc tccggccaaa gctgtccggg gctccctggc ccagcgggta 1260
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90 ttcagacctc agatccggga aactagaggg gtcccagatg ctgggggtgca tatgtcagat 1560
92 gggagtgcag gagggcggcc caggacagct gatcgctagg catggccccc agggccacgt 1620
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102 gtgcctgcag gccctgcagc gacgtgagc tgctcctggc cgcatgcacc agcgacttcg 1920
104 gtgagtgtcc ccgcatggg gggagcctgg agcctgcctt cccctgaatg cctaccgcag 1980
106 ccacatgcct cccacagta attcacggga tcattccatg ggtcacccat gacgtggagc 2040
108 tgcaggagtc tgtcatcact gtgggtggccg cccgtgtcct ccgccagaca ccgccgctgt 2100
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120 tcacgcaagc tgctgtggac ctggtctcct gtgtccagcc cagccttggg cctgcctcgc 2460
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125 &lt;210&gt; SEQ ID NO: 2

126 &lt;211&gt; LENGTH: 1109

127 &lt;212&gt; TYPE: DNA

128 &lt;213&gt; ORGANISM: Homo sapiens

131 &lt;220&gt; FEATURE:

132 &lt;221&gt; NAME/KEY: CDS

133 &lt;222&gt; LOCATION: (118)..(999)

135 &lt;400&gt; SEQUENCE: 2

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136 gcttcgccgg ggccggggcg ccggcgcccc cggtgtctcc cgccgccgcc cggacccgcg 60
138 ccccgccggg gcagcgggtg tgagagcccc gactccccgg acgccgcccc ccgtgcc 117
140 atg ggg ttc ccg gcc gcg gcg ctg ctc tgc gcg ctg tgc tgc ggc ctc 165
141 Met Gly Phe Pro Ala Ala Ala Leu Leu Cys Ala Leu Cys Cys Gly Leu
142 1 5 10 15
144 ctg gcc ccg gct gcc cgc gcc ggc tac tcc gag gag cgc tgc agc tgg 213
145 Leu Ala Pro Ala Ala Arg Ala Gly Tyr Ser Glu Glu Arg Cys Ser Trp
146 20 25 30
148 agg ggc agc ggc ctc acc cag gag ccc ggc agc gtg ggg cag ctg gcc 261
149 Arg Gly Ser Gly Leu Thr Gln Glu Pro Gly Ser Val Gly Gln Leu Ala
150 35 40 45
152 ctg gcc tgt gcg gag ggc gcg gtt gag tgg ctg tac ccg gct ggg gcg 309
153 Leu Ala Cys Ala Glu Gly Ala Val Glu Trp Leu Tyr Pro Ala Gly Ala
154 50 55 60
156 ctg cgc ctg acc ctg ggc ggc ccc gat ccc aga gcg cgg ccc ggc atc 357
157 Leu Arg Leu Thr Leu Gly Gly Pro Asp Pro Arg Ala Arg Pro Gly Ile

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158 65          70          75          80
160 gcc tgt ctg cgg ccg gtg cgg ccc ttc gcg ggc gcc cag gtc ttc gcg      405
161 Ala Cys Leu Arg Pro Val Arg Pro Phe Ala Gly Ala Gln Val Phe Ala
162          85          90          95
164 gag cgc gca ggg ggc gcc ctg gag ctg ctg ctg gcc gag ggc ccg ggc      453
165 Glu Arg Ala Gly Gly Ala Leu Glu Leu Leu Leu Ala Glu Gly Pro Gly
166          100          105          110
168 ccg gca ggg ggc cgc tgc gtg cgc tgg ggt ccc cgc gag cgc cgg gcc      501
169 Pro Ala Gly Gly Arg Cys Val Arg Trp Gly Pro Arg Glu Arg Arg Ala
170          115          120          125
172 ctc ttc ctg cag gcc acg ccg cac cag gac atc agc cgc cgc gtg gcc      549
173 Leu Phe Leu Gln Ala Thr Pro His Gln Asp Ile Ser Arg Arg Val Ala
174          130          135          140
176 gcc ttc cgc ttt gag ctg cgc gag gac ggg cgc ccc gag ctg ccc ccg      597
177 Ala Phe Arg Phe Glu Leu Arg Glu Asp Gly Arg Pro Glu Leu Pro Pro
178 145          150          155          160
180 cag gcc cac ggt ctc ggc gta gac ggt gcc tgc agg ccc tgc agc gac      645
181 Gln Ala His Gly Leu Gly Val Asp Gly Ala Cys Arg Pro Cys Ser Asp
182          165          170          175
184 gct gag ctg ctc ctg gcc gca tgc acc agc gac ttc gta att cac ggg      693
185 Ala Glu Leu Leu Leu Ala Ala Cys Thr Ser Asp Phe Val Ile His Gly
186          180          185          190
188 atc atc cat ggg gtc acc cat gac gtg gag ctg cag gag tct gtc atc      741
189 Ile Ile His Gly Val Thr His Asp Val Glu Leu Gln Glu Ser Val Ile
190          195          200          205
192 act gtg gtg gcc gcc cgt gtc ctc cgc cag aca ccg ccg ctg ttc cag      789
193 Thr Val Val Ala Ala Arg Val Leu Arg Gln Thr Pro Pro Leu Phe Gln
194          210          215          220
196 gcg ggg cga tcc ggg gac cag ggg ctg acc tcc att cgt acc cca ctg      837
197 Ala Gly Arg Ser Gly Asp Gln Gly Leu Thr Ser Ile Arg Thr Pro Leu
198 225          230          235          240
200 cgc tgt ggc gtc cac ccg ggc cca ggc acc ttc ctc ttc atg ggc tgg      885
201 Arg Cys Gly Val His Pro Gly Pro Gly Thr Phe Leu Phe Met Gly Trp
202          245          250          255
204 agc cgc ttt ggg gag gcc ccg ctg ggc tgt gcc cca cga ttc cag gag      933
205 Ser Arg Phe Gly Glu Ala Arg Leu Gly Cys Ala Pro Arg Phe Gln Glu
206          260          265          270
208 ttc cgc cgt gcc tac gag gct gcc cgt gct gcc cac ctc cac ccc tgc      981
209 Phe Arg Arg Ala Tyr Glu Ala Ala Arg Ala Ala His Leu His Pro Cys
210          275          280          285
212 gag gtg gcg ctg cac tga ggggctgggt gctggggagg ggctggtagg      1029
213 Glu Val Ala Leu His
214          290
216 agggagggtg ggccactgc tttggaggtg atgggactat caataagaac tctgttcacg      1089
218 caaaaaaaaaa aaaaaaaaaa
221 <210> SEQ ID NO: 3
222 <211> LENGTH: 293
223 <212> TYPE: PRT
224 <213> ORGANISM: Homo sapiens

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226 &lt;400&gt; SEQUENCE: 3

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228 Met Gly Phe Pro Ala Ala Ala Leu Leu Cys Ala Leu Cys Cys Gly Leu
229 1          5          10          15
232 Leu Ala Pro Ala Ala Arg Ala Gly Tyr Ser Glu Glu Arg Cys Ser Trp
233          20          25          30
236 Arg Gly Ser Gly Leu Thr Gln Glu Pro Gly Ser Val Gly Gln Leu Ala
237          35          40          45
240 Leu Ala Cys Ala Glu Gly Ala Val Glu Trp Leu Tyr Pro Ala Gly Ala
241          50          55          60
244 Leu Arg Leu Thr Leu Gly Gly Pro Asp Pro Arg Ala Arg Pro Gly Ile
245 65          70          75          80
248 Ala Cys Leu Arg Pro Val Arg Pro Phe Ala Gly Ala Gln Val Phe Ala
249          85          90          95
252 Glu Arg Ala Gly Gly Ala Leu Glu Leu Leu Ala Glu Gly Pro Gly
253          100         105         110
256 Pro Ala Gly Gly Arg Cys Val Arg Trp Gly Pro Arg Glu Arg Arg Ala
257          115         120         125
260 Leu Phe Leu Gln Ala Thr Pro His Gln Asp Ile Ser Arg Arg Val Ala
261          130         135         140
264 Ala Phe Arg Phe Glu Leu Arg Glu Asp Gly Arg Pro Glu Leu Pro Pro
265 145         150         155         160
268 Gln Ala His Gly Leu Gly Val Asp Gly Ala Cys Arg Pro Cys Ser Asp
269          165         170         175
272 Ala Glu Leu Leu Leu Ala Ala Cys Thr Ser Asp Phe Val Ile His Gly
273          180         185         190
276 Ile Ile His Gly Val Thr His Asp Val Glu Leu Gln Glu Ser Val Ile
277          195         200         205
280 Thr Val Val Ala Ala Arg Val Leu Arg Gln Thr Pro Pro Leu Phe Gln
281          210         215         220
284 Ala Gly Arg Ser Gly Asp Gln Gly Leu Thr Ser Ile Arg Thr Pro Leu
285 225         230         235         240
288 Arg Cys Gly Val His Pro Gly Pro Gly Thr Phe Leu Phe Met Gly Trp
289          245         250         255
292 Ser Arg Phe Gly Glu Ala Arg Leu Gly Cys Ala Pro Arg Phe Gln Glu
293          260         265         270
296 Phe Arg Arg Ala Tyr Glu Ala Ala Arg Ala Ala His Leu His Pro Cys
297          275         280         285
300 Glu Val Ala Leu His
301          290

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304 &lt;210&gt; SEQ ID NO: 4

305 &lt;211&gt; LENGTH: 270

306 &lt;212&gt; TYPE: PRT

307 &lt;213&gt; ORGANISM: Homo sapiens

309 &lt;400&gt; SEQUENCE: 4

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311 Gly Tyr Ser Glu Glu Arg Cys Ser Trp Arg Gly Ser Gly Leu Thr Gln
312 1          5          10          15
315 Glu Pro Gly Ser Val Gly Gln Leu Ala Leu Ala Cys Ala Glu Gly Ala
316          20          25          30
319 Val Glu Trp Leu Tyr Pro Ala Gly Ala Leu Arg Leu Thr Leu Gly Gly

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Output Set: N:\CRF4\10052006\J594192.raw

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320          35          40          45
323 Pro Asp Pro Arg Ala Arg Pro Gly Ile Ala Cys Leu Arg Pro Val Arg
324          50          55          60
327 Pro Phe Ala Gly Ala Gln Val Phe Ala Glu Arg Ala Gly Gly Ala Leu
328 65          70          75          80
331 Glu Leu Leu Leu Ala Glu Gly Pro Gly Pro Ala Gly Gly Arg Cys Val
332          85          90          95
335 Arg Trp Gly Pro Arg Glu Arg Arg Ala Leu Phe Leu Gln Ala Thr Pro
336          100         105         110
339 His Gln Asp Ile Ser Arg Arg Val Ala Ala Phe Arg Phe Glu Leu Arg
340          115         120         125
343 Glu Asp Gly Arg Pro Glu Leu Pro Pro Gln Ala His Gly Leu Gly Val
344          130         135         140
347 Asp Gly Ala Cys Arg Pro Cys Ser Asp Ala Glu Leu Leu Ala Ala
348 145         150         155         160
351 Cys Thr Ser Asp Phe Val Ile His Gly Ile Ile His Gly Val Thr His
352          165         170         175
355 Asp Val Glu Leu Gln Glu Ser Val Ile Thr Val Val Ala Ala Arg Val
356          180         185         190
359 Leu Arg Gln Thr Pro Pro Leu Phe Gln Ala Gly Arg Ser Gly Asp Gln
360          195         200         205
363 Gly Leu Thr Ser Ile Arg Thr Pro Leu Arg Cys Gly Val His Pro Gly
364          210         215         220
367 Pro Gly Thr Phe Leu Phe Met Gly Trp Ser Arg Phe Gly Glu Ala Arg
368 225         230         235         240
371 Leu Gly Cys Ala Pro Arg Phe Gln Glu Phe Arg Arg Ala Tyr Glu Ala
372          245         250         255
375 Ala Arg Ala Ala His Leu His Pro Cys Glu Val Ala Leu His
376          260         265         270
379 <210> SEQ ID NO: 5
380 <211> LENGTH: 166
381 <212> TYPE: PRT
382 <213> ORGANISM: Homo sapiens
384 <400> SEQUENCE: 5
386 Ala Leu Phe Leu Gln Ala Thr Pro His Gln Asp Ile Ser Arg Arg Val
387 1          5          10          15
390 Ala Ala Phe Arg Phe Glu Leu Arg Glu Asp Gly Arg Pro Glu Leu Pro
391          20          25          30
394 Pro Gln Ala His Gly Leu Gly Val Asp Gly Ala Cys Arg Pro Cys Ser
395          35          40          45
398 Asp Ala Glu Leu Leu Leu Ala Ala Cys Thr Ser Asp Phe Val Ile His
399          50          55          60
402 Gly Ile Ile His Gly Val Thr His Asp Val Glu Leu Gln Glu Ser Val
403 65          70          75          80
406 Ile Thr Val Val Ala Arg Val Leu Arg Gln Thr Pro Pro Leu Phe
407          85          90          95
410 Gln Ala Gly Arg Ser Gly Asp Gln Gly Leu Thr Ser Ile Arg Thr Pro
411          100         105         110
414 Leu Arg Cys Gly Val His Pro Gly Pro Gly Thr Phe Leu Phe Met Gly

```

## RAW SEQUENCE LISTING ERROR SUMMARY

DATE: 10/05/2006

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TIME: 09:45:20

Input Set : A:\19313-015 NATL (1-59).ST25.txt

Output Set: N:\CRF4\10052006\J594192.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:6; N Pos. 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23

Seq#:6; N Pos. 24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43

Seq#:6; N Pos. 44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

Seq#:6; N Pos. 64,65,66,67,68,69,70,71,72,73,74,75,76,77,78

Seq#:11; N Pos. 17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36

Seq#:11; N Pos. 37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56

Seq#:11; N Pos. 57,58,59,60,61,62,63,64,65,66

## VERIFICATION SUMMARY

DATE: 10/05/2006

PATENT APPLICATION: US/10/594,192

TIME: 09:45:20

Input Set : A:\19313-015 NATL (1-59).ST25.txt

Output Set: N:\CRF4\10052006\J594192.raw

L:15 M:270 C: Current Application Number differs, Replaced Current Application Number  
L:16 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:442 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:0  
L:444 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:60  
L:836 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:0  
L:838 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:60